

Executive Summary of FirstNet's Request for Information (RFI) for Comprehensive Network Solution(s) dated September 17, 2014

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Document

[FirstNet Request for Information for Comprehensive Network Solution\(s\)](#) (September 17, 2014)

Summary

This RFI seeks input from interested parties regarding approaches to and objectives for establishing the National Public Safety Broadband Network (NPSBN). Responses to this RFI will be used by FirstNet help craft the nature of one or more RFPs to build, deploy, operate, and maintain the network. Responses are due by October 17.

Takeaways

1. FirstNet has completed an activity (the issuance of an RFI) that was identified by FirstNet as critical path step for the issuance of RFP(s) to build the network. The final RFP is planned to be issued in Q4 of FY2015 (July-September 2015 on the Federal calendar).
2. FirstNet is taking an open approach in this RFI as to the nature of how the network will be procured and implemented. FirstNet does not presume a specific technical solution.
3. The nature of the services potentially procured is very broad, including how the network is built, deployed, operated, and maintained. FirstNet seeks information on the full range of infrastructures, products, and services available from existing commercial wireless providers.
4. FirstNet has not stated whether they plan to go out to bid for the whole system or piece it together through multiple procurements as a systems integrator. FirstNet states openness to a variety of different partnering approaches.
5. FirstNet is soliciting information about potential "in kind" or monetary valuations of secondary use of its network or partnering for public safety applications.
6. Key evaluation factors include the value of excess network capacity, time to market, public safety program objectives, and the extent of rural coverage, among others.
7. FirstNet is seeking a solution that allows priority and preemption for all NPSBN users under tiered, national, regional, and local control.
8. FirstNet has concerns about how to manage Opt-out States access and interoperability.
9. The responses to this RFI will not be made public and are treated as "Business Proprietary."
10. FirstNet is expecting the contract award to run through 2022 with options for extension.
11. From an end user's perspective, the most important section of the RFI is Appendix B – Draft Statement of Objectives (SOO). These are objectives governing how FirstNet is envisioning the network. Once finalized, these objectives will guide future solicitations and contracts. See below additional information on the specific objectives and corresponding RFI questions.

Key Points

FirstNet identifies 15 objectives (p. 13-15) and asks 30 questions (p. 3-8) in this RFI. In general, the RFI stipulates a performance-based acquisition approach that “maximizes the network’s value to public safety while meeting financial sustainability obligations under the Act.” The first several questions are about the acquisition approach. The rest pertain to and are organized around specific objectives.

Acquisition Approach: *In deciding its overall acquisition approach (comprehensive RFP vs. multiple RFPs managed by FirstNet as the systems integrator), FirstNet is considering the following factors:*

- *economies of scale and scope;*
- *ability to leverage existing commercial mobile infrastructure;*
- *the value of leasing excess spectrum capacity (either nationally or state-by-state);*
- *the trade-off between spectrum availability and potential third-party revenue;*
- *single parties versus multiple parties in executing the contract(s);*
- *considerations about supporting multiple disparate RANs and vendor technologies;*
- *considerations about using potentially thousands of public and private sites/infrastructure with different owners, lessors, requirements, and equipment;*
- *providing certainty to vendors in light of an unknown number of Opt-out States;*
- *working within the limits of available funding and Federal hiring, contracting, and operating rules and regulations;*
- *working within the Act specified spectrum license duration;*
- *working within the requirements of the Act; and*
- *achieving the greatest value for public safety.*

Q1. Should FirstNet (1) pursue a comprehensive solution, (2) act as integrator and seek proposals for equipment and services to custom assemble the network, or (3) something else?

Q2. How should FirstNet leverage existing infrastructure?

Objective 1 Build, Deploy, Operate and Maintain the NPSBN: *24/7 coverage and complying with the Technical Requirements (section 1.3 of the [Interoperability Board Report](#) and additional network policies to be developed by FirstNet).*

Q3. What is the feasibility of providing nationwide coverage given FirstNet Resources? FirstNet is looking for a cost-benefit analysis of different types of coverage across urban, suburban, rural, and wilderness topologies.

Q4. Should procurement of the Core, RAN, and leasing of excess spectrum be combined for procurement? How should Opt-out States be handled?

Objective 2 Financial Stability: *build, deploy, operate and maintain NPSBN while minimizing risk and cost.*

Q5. How can FirstNet minimize costs to build, deploy, operate, and maintain (including upgrade) the NPSBN?

Q6. How should FirstNet maximize the value of Covered Leasing Agreements (i.e., leasing excess spectrum to a third party)? How should it be measured?

Q7. What sustainability and transition strategies should FirstNet pursue to continue beyond the initial 15 year lease provided in the Act?

Objective 3 Compelling and Competitive Pricing Packages: *offer service packages with data, voice, messaging, streaming, and location services; optimize pricing to encourage subscribership and remain financially sustainable.*

Q8. What are the optimal prices and features to drive user adoption? Should traffic usage-tiered pricing be used?

Q9. What can be done by FirstNet to make sure user and Core fees are not too high?

Objective 4 End User Devices: *provide 3GPP-compliant Band 14 devices that work seamlessly across NPSBN, roam across partner networks (including non-Band 14), and work with a broad range of applications.*

Objective 5 Application Ecosystem: *provide rich selection of public safety-relevant applications and services.*

Objective 6 Accelerate Speed to Market: *include in each implementation phase broadband capabilities, Band 14 access, significant subscribership, and substantial rural coverage.*

Q10. What technical and deployment milestones should be used for implementing the network, including initial and final operating capabilities?

Q11. What rural coverage milestones should be included to achieve substantial rural coverage as part of each phase?

Objective 7 System Hardening: *provide a network infrastructure that is hardened to withstand environmental, cyber, and other threats.*

Q12. How should FirstNet address unique environmental hardening objectives? What are the tradeoffs between hardening and costs?

Q13. How should different hardening and resiliency solutions be evaluated for best value?

Q14. How should FirstNet address areas with unique homeland security or national security needs?

Objective 8 Priority and Preemption: *provide priority and preemption controls for all users under tiered national, regional, and local control.*

Q15. How should priority and preemption be implemented across multiple levels of public safety? How would this work in Opt-out States? How about when leveraging existing infrastructure?

Objective 9 Integration of Opt-Out State RANs: *integrate with NPSBN opt-out RANs so there are no service interruptions nationally.*

Q16. How should State Opt-out RANs integrate with the Core?

Q17. What integration issues and costs should be addressed if an Opt-out State requires material modifications to the Core?

Objective 10 Integration of RANs and Infrastructure on a Cost-Reimbursement Basis: *determine whether or not to leverage commercial, FirstNet, or other public RANs and infrastructure; leverage non-FirstNet RANs and infrastructure on a cost-reimbursement basis.*

Q18. Is it economically desirable to leverage commercial infrastructure, include partnerships with existing commercial providers, or enter into agreements to utilize existing commercial or public infrastructure?

Q19. How should FirstNet enter into agreements for infrastructure or wireless services? How would that affect cost and implementation?

Objective 11 System Reliability and Restoration: *maintain reliability of at least 99.99%, session setup time <1s, success rate >=99%, abnormal session release <1%, throughput >256kbps>96% of the time, and latency <60ms >95%; provide end to end availability in excess of 99%; operate during natural and man-made disasters with fast restoration of service; provide special consideration to disaster prone areas.*

Q20. How should FirstNet meet reliability and restoration objectives, including disaster areas?

Q21. Are the stated performance metrics reasonable? What others should be used?

Objective 12 Lifecycle Innovation: *evolve the NPSBN solution including products, services, and 3GPP LTE standards.*

Q22. How should FirstNet incorporate ongoing technology enhancements? How should Opt-out States keep pace?

Objective 13 Program and Business Management: *provide PMI standard program management; utilize GAO cost guidelines; provide reporting to assure compliance with the Act.*

Objective 14 Customer Care and Marketing: *market NPSBN products and services to all states; provide responsive and timely customer service and lifecycle support to all users; assure a pipeline of new devices and applications.*

Q23. How should FirstNet go-to-market and manage pre-sales, sales, and post-sale activities? What conflicts might an existing wireless carrier have with managing FirstNet sales?

Q24. What strategies should be used to transition existing public safety users to FirstNet?

Q25. What levels of adoption should be anticipated and what barriers to adoption exist?

Objective 15 Facilitate FirstNet's Compliance with the Act and Other Laws: *maintain compliance with statutory requirements of the Act and other applicable laws.*

Q26. How should an awardee aid FirstNet's program compliance requirements in the Act?

Q27. How should an awardee aid FirstNet's program compliance requirements for other laws (e.g., National Environmental Policy Act (NEPA) and the National Historic Preservation Act (NHPA))?

Additional Information Requested

Q28. Provide feedback on FirstNet's 15 objectives.

Q29. Provide evaluation criteria for each objective.

Q30. Provide any additional information.